

females never, at any time, possess this coloration on the two segments in question. The determination of the correctness of these assumptions affords a field for further observation and experiment. Those who undertake this should carefully note the colors of the living insects at frequent intervals with reference to some work like Ridgway's *Color Standards and Color Nomenclature*.

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Descriptions of New Genera and Species of the Dipterous Family Ephydriidae.—II*

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Dichaeta atriventris n. sp.

Similar to *caudata* Fall. but smaller (3.0 mm.) and the abdomen is entirely shining black, especially in the female, without any traces of grayish apices to the segments; the face is somewhat shorter in proportion.

Holotype.—♂, Colorado Springs, Colorado. Aug. 5915 ft. alt. (E. S. Tucker). [University of Kansas Collection.]

Paratype.—1 ♂, with same data.

This may be merely a variety of *caudata* but I have been unable to find any intergradents.

*Paper I. ENT. NEWS, xxv. 241, 1914.

Paralimna texana n. sp.

Similar to *P. appendiculata* Loew, but averaging lighter in general color on account of the non-coalescence of the brown irroration, especially of the mesonotum. The fourth vein lacks the appendages so distinctive of that species. Furthermore the fore femora of the male have the mesal flexor ciliation well developed, of curved flattened bristles, while the lateral series is complete nearly to the apex and is composed of numerous normal bristles arranged more or less irregularly towards the base. The fore femora and tibiae are slightly bent and their flexor surfaces more or less flattened. The wings are noticeably milky in well-preserved specimens. The females are difficult to separate from those of *appendiculata*, especially those from the southern localities. This may ultimately prove to be merely a subspecies of that species, but the characters noted above are of sufficient importance at present to warrant their use as a basis for a new species.

Holotype.—♂, Austin, Texas, October 1900. [Washington State College Collection.]

Paratypes.—2 ♂, 5 ♀, with same data.

Hydrellia proclinata n. sp.

Black, subopaque, obscurely metallic green; halteres lemon yellow. Frons opaque black, with median area slightly greenish; lunule, face and cheeks densely bluish white. Mesonotum: scutellum much obscured by the thin brownish or hoary dust; pleura brownish with propleural and pteropleural hoary spots. Abdomen shining apically. Wings hyaline with black veins.

Head broader than high. Frons with strong mesofrontal bristles, including a pair of distinct proclinate pre-ocellars, also a strong proclinate orbital and a few setulae, the *usual reclinate orbital being absent*. Face 2.5 to 3 times as long as broad, nearly flat, very weakly carinate for its full length; 4-6 side bristles with a series of smaller ones nearer orbits. Cheeks equalling width of third antennal joint. Antennae short; third joint rather conical, as long as broad; arista thickened on basal half, with 5-7 hairs. Thorax and its chaetotaxy normal. Scutellum flat, truncate. Abdomen of male elongate with segment 5 as broad as long, truncate. Legs normal; hind femora with two series of setulae on lateral surfaces. Wings with second costal section 1.5 as long as third. Length, 1.75-2.75 mm.

Holotype.—♂, Berkeley Hills, Alameda Co., California, April 20, 1908 (Cresson). [Type No. 6075. A. N. S. P.]

Paratypes.—3 ♂, 5 ♀, with same data.

Differing from all known American species in having no reclinate frontal orbital bristles and in the face having two series

of facial bristles. The intensity of the pruinose coating of the mesonotum varies considerably, and the upper frontal orbital bristle is more or less developed but is always much smaller than the lower.

Parydra nitida sp. nov.

Black, similar in form to *P. bituberculata* Lw. Front polished with hardly any perceptible brown pollen, and of a more or less metallic color; face with lower part, clypeus, cheeks and occiput whitish pruinose. Metanotum also rather polished and nearly destitute of brown pollen, with the anterior portion of two median grayish vittae perceptible. Scutellum also polished, broadly rounded apically; the small apical tubercles not approximate and the lateral ones very small. Pleurae on lower part and pectus whitish pruinose. *Metanotum broadly polished medianly with the lateral angles distinctly pruinose, the respective areas sharply defined.* Abdomen rather shining metallic green, more or less faintly whitish. Legs black with tarsi only faintly rufous basally; the basal and apical silver spots of tibiae very distinct. Wings as in *P. bituberculata*, but cross-veins rather faintly clouded, and second vein ending beyond posterior cross-vein. Length 3.5-4.5 mm.

Holotype.—♂, Potlatch, Idaho. VI. 20. 1901. (J. M. Aldrich). [Type No. 6071, A. N. S. P.]

Paratypes.—2 ♂, 2 ♀, with same data.

The rather polished dorsal surfaces, the broad scutellum with the very small tubercles, and particularly the distinctively polished metanotum are the salient characters.

CIRRULA nov. gen.

In general appearance similar to *Ephydra*. Front broad, flat, slightly oblique but little depressed; vertical bristles weak, only two orbitals, near vertex; frontal plate extending forward beyond line of facial orbits, with a widely separated pair of proclinate converging setulae at anterior margin. Face in general projecting but more prominent at the medial hump between the distinct antennal foveae, in profile slightly concaved and retreating; evenly clothed with fine hairs; a tuft of very long down-curved bristles on the medial hump. Antennae short; second joint large, swollen; third rounded. Mesonotum nearly destitute of bristles except marginally; dorso-centrals represented by four short hair-like bristles hardly differentiated from the pile; acrostichals wanting; prescutellars

large; 1 humeral, 1 presutural small, 1 small supra-alar, 2 post-alars, 4 scutellars, 2 noto-, 1 meso-, 1 sterno-pleural present. Abdomen normal. Legs long, more or less characteristically developed in male; claws nearly straight; pulvilli wanting. Wings normal with post.c.v. straight but oblique.

A well-marked genus based on the tufted arrangement of the facial bristles which are not situated on the sides of the face as is usual with the Ephydridae, but are confined to a tuft on the hump between the antennae. Only one, the following species, is known.

Cirrula gigantea n. sp.

Black with yellow halteres; metallic-colored, mostly tawny to brown pruinose. Frontal plate shining, bluish-green, sparingly dusted with brown, with an elongate, narrow indentation just before the ocellar tubercle, clothed with short, appressed hairs; orbits very narrow, opaque, brown pruinose with two orbitals in a series of fine setulae; frontalia distinct, opaque, velvety brownish-black, much dilated anteriorly. Face opaque, golden brown with a shining metallic spot between antennal foveae above; bristles as long as face; oral cilia few, long, laterally. Checks concolorous, about one-third the height of head. Antennae with third joint slightly longer than wide, conical; arista bare, except the thickened basal third pubescent.

Mesonotum shining, but more or less obscured by brown dust; an approximated anterior pair and a widely separated posterior pair of grayish stripes which are more or less opaque in certain aspects. Scutellum concolorous, convex, with a few marginal hairs which are hooked at their ends. Pleurae below and metanotum grayish. Abdomen somewhat shining, glaucous green with long, hooked hairs apically; of male narrower than thorax, rather long, with seg. 2-4 subequal, 5 about one and one-half times as long as 4, triangular, rather acute apically; of female wider and shorter in proportion. Legs with anterior coxae silvery gray; all femora greenish-tinged and brownish, distinctly haired; male fore tarsi widely dilated and flattened, post-tibiae with an apical, lateral flexor tuft of long, hooked bristle-like hairs, its basal tarsus somewhat flattened and ciliate on lateral flexor margin, also evident on the next joint; extensor surface of post-tibiae narrowly polished. Wings brownish with costal sections 1 and 2 and veins 1 and 2 yellow. Length 7-9 mm.

Holotype.—♂, Cohasset, Mass. Sept. 8, 1904. [Type No. 6072. A. N. S. P.]

Paratypes.—3 ♀ with same data.

Scatella intermedia n. sp.

Black. Front twice as broad as long, shining, with a metallic green tinge and slightly gray pruinose. Face half as broad as vertex, as broad as long, protruding most at oral margin for about half the width of eye, entirely grayish or whitish with slight brown tinge above and laterally; 3 to 4 laterally-inclined bristles each side, the lowest of which is much longer than the next one, also a short ventrally-inclined bristle at lateral angle; setulae distinct and numerous; oral margin ciliate anteriorly. Cheeks half the width of antennae with distinct bristle. Third antennal joint slightly longer than broad, broadly rounded apically; arista twice the third, nearly bare.

Mesonotum somewhat shining, more or less obscured by brown dust which becomes more bluish-gray at margins; anterior d. c. and sutural acrostichals present; no postacrostichals. Scutellum concolorous, flat, apex rounded. Pleurae more grayish below; metanotum bluish gray. Halteres yellow. Abdomen elongate, shining, brown and gray pruinose; segment 4 of male one and one-half times as long as 3. Legs more or less brown and gray pruinose. Wings blackish-tinged, with five diluted spots of same arrangement as in *stagnalis* Fall.; costal sections 3 and 4 subequal; ultimate section of vein 4 slightly longer than preceding. Length 3 mm.

Holotype.—♂, Milbrae, Salt marsh, San Mateo Co., California. March 20, 1908. (Cresson). [Type No. 6073. A. N. S. P.]

Paratypes.—2 ♂, 2 ♀, with same data.

This may be *pentastigma* of Thomson, but only comparison of the types will make this certain. The wing spots are sometimes very faint. The gray coloration of the thorax and abdomen varies to some extent in its extensions. Belongs to the small group having both distinct anterior dorso-centrals and sutural acrostichal bristles present.

Scatella intermedia var. **obscuriceps** n. var.

Generally darker, with face dark brown or cinnamon-colored and wing spots more distinct.

Holotype.—♂, Swarthmore, Pennsylvania. April 18, 1909. (Cresson). [Type No. 6074. A. N. S. P.]

Paratype.—1 ♂, with same data.

I cannot consider this a distinct species although no intergradents have been seen.